

**Q5. Tick the correct answer:**

**What is the major difference between a Celeron processor and a Pentium 4 processor?**

- A ☐ The Celeron has more L1 cache memory.      B ☐ The Celeron has less L1 cache memory.  
C ☐ The Celeron has more L2 cache memory.      D ☒ The Celeron has less L2 cache memory.

**What chip type uses a ZIF socket?**

- A ☐ SEC      B ☐ DIP      C ☒ PGA      D ☐ Socket 5

**When a CPU needs to access data, where will it look for this data first?**

- A ☐ L2 Cache      B ☐ RAM      C ☒ L1 Cache      D ☐ ROM

**PC2700 refers to a DDR SDRAM chip running on a clock speed of:**

- A ☐ 100 MHz      B ☐ 133 MHz      C ☒ 166 MHz      D ☐ 200 MHz

**What is the correct boot sequence for a PC?**

- A. CPU, POST, power good, boot loader, operating system  
B. CPU, power good, POST, boot loader, operating system  
C. Power good, boot loader, CPU, POST, operating system  
D. POST, power good, CPU, boot loader, operating system

**Which of the CMOS Menu enables you to change the voltage and multiplier settings for the CPU**

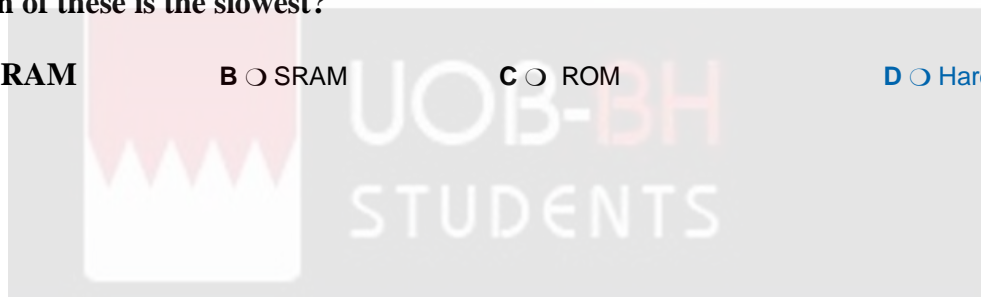
- A ☐ BIOS      B ☐ Chipset      C ☐ PC Health      D ☒ Soft

**Which of these is the fastest?**

- A ☐ DRAM      B ☒ SRAM      C ☐ ROM      D ☐ Hard Disk

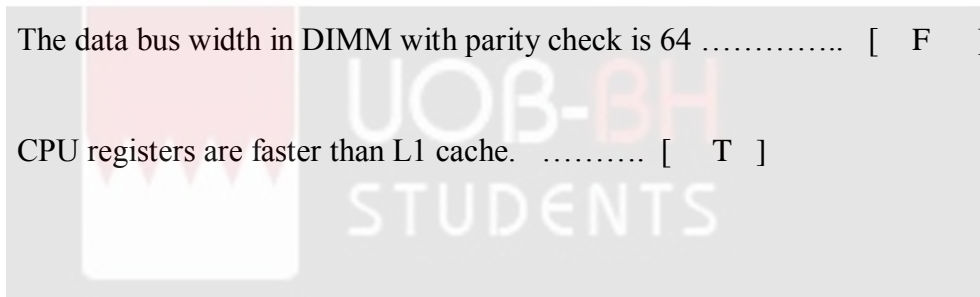
**Which of these is the slowest?**

- A ☐ DRAM      B ☐ SRAM      C ☐ ROM      D ☒ Hard Disk



**Q2. Answer True T or False F:**

- a) The address bus provides a channel for the flow of data and commands between the CPU and RAM. .... [ F ]
- b) The Core 2 Duo CPU has two L2 caches. .... [ F ]
- c) DDR2-based motherboards require empty slots to be filled with CRIMMs for termination. .... [ F ]
- d) Parallel Ports are not hot-swappable. .... [ T ]
- e) USB B plugs go downstream to devices. .... [ T ]
- f) DDR2 uses a 184-pin DIMM. .... [ F ]
- g) DDR SDRAM for laptops comes in either 200-pin SO-DIMMs or 172-pin micro-DIMMs .... [ T ]
- h) ESD may not occur on a cool, dry day. .... [ F ]
- i) DIMM uses 5 volt as its supply voltage. .... [ F ]
- j) The data bus width in DIMM with parity check is 64 .... [ F ]
- k) CPU registers are faster than L1 cache. .... [ T ]



### Q3. Perform the following calculations:

- a) If 3.05 GHz CPU runs with 145MHz External speed. What will be the value of the multiplier?

$$3050 \text{ MHz} / 145 \text{ MHz} = 21$$

- b) What will be the core RAM clock of DDR2 type DIMM if the PC speed rating is PC2-6400?

$$6400 / 8 / 2 / 2 = 200 \text{ MHz}$$

- c) How many bytes can be addressed by 34 – bit address bus CPU?

$$2^{34} = 16 \text{ GB}$$

- d) Estimate the best MIPS of a 3 GHz Pentium 4 CPU.

$$3000 \text{ M cycle per second} * 2 \text{ instructions per cycle} = 6000$$

### Q4. Answer the following questions:

- a) In which of the CMOS Menu you can configure the parallel port?

***Integrated Peripherals***

- b) In which of the CMOS Menu you can configure the boot sequence?

***Advanced BIOS Features***

- c) Briefly explain how to manually remove a device driver?

***In Device Manager, right-click the device driver you want to uninstall and select Uninstall***

- d) Why flash ROMs are not used as a main (nonvolatile) RAM?

***They are SLOW as compared to DRAM***

**University of Bahrain**  
**College of Information Technology**  
**Department of Computer Engineering**  
**TERM TEST**  
**ITCE 212: PC'S & TROUBLESHOOTING**  
**Summer Semester**

<b>Date : 8 – 8 - 2007</b> <b>Dr. Riyadh Al-Hakim</b>	<b><u>Student Name:</u></b>	
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<b><u>SECTION NO:</u> 1 (M W) 3 (U T H)</b>		<b><u>Department:</u></b>

**Q1. What do the following terms stand for?**

- a) PGA      *Pin Grid Array*
- b) POST      *Power On Self Test*
- c) IDE      *Integrated Drive Electronic*
- d) ZIF      *Zero Insertion Force*